

In the claims:

**1. (currently amended):** An aqueous ink composition for the ink-jet printing method, which ink-comprises

- a) metallic or non-metallic, inorganic platelet-shaped particles having an average particle diameter of at least 2  $\mu\text{m}$ ,
- b) a dispersant (dispersing agent) and
- c) a binder

**2. (original):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are aluminium flakes.

**3. (currently amended):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are aluminium flakes coated with  $\text{SiO}_z$  wherein  $0.95 \leq z \leq 2.0$ , ~~especially  $1.1 \leq y \leq 2.0$ , more especially  $1.4 \leq y \leq 2.0$ .~~

**4. (original):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are pigments that comprise

- (a1) a core consisting of a substantially transparent or metallicity reflecting material and
  - (a2) at least one coating substantially consisting of one or more silicon oxides ( $\text{SiO}_x$  layer)
- wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ .

**5. (currently amended):** An aqueous ink composition according to claim 4, wherein the pigment has the following layer structure:

- (a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.7}$~~
- (a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,
- (a1) a core consisting of a substantially transparent or metallicity reflecting material, and
- (a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,
- (a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.7}$~~

or

- (a4) a coating consisting of any desired solid material the composition of which is different from that of the coating (a3),

(a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.1}$~~

(a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,

(a1) a core consisting of a substantially transparent or metallically reflecting material, and

(a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,

(a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.1}$~~

(a4) a coating consisting of any desired solid material the composition of which is different from that of the coating (a3).

**6. (currently amended):** An aqueous ink composition according to claim 5, wherein the gloss-pigment has the following layer structure:  $\text{SiO}_x/\text{SiO}_z/\text{SiO}_x$ ,  $\text{SiO}_z/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_z$ , ~~especially  $\text{SiO}_2/\text{SiO}_x/\text{SiO}_2/\text{SiO}_x/\text{SiO}_{2.1}$~~ ,  $\text{SiO}_x/\text{Al}/\text{SiO}_x$ ,  $\text{SiO}_z/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_z$ , ~~especially  $\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_{2.1}$~~ ,  $\text{TiO}_2/\text{SiO}_z/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_z/\text{TiO}_2$ , ~~especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{SiO}_2/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$~~  or  $\text{TiO}_2/\text{SiO}_z/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_z/\text{TiO}_2$ , ~~especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$~~ , wherein  $0.03 \leq x < 0.95$  and  $0.95 \leq z \leq 2.0$ , ~~especially  $1.40 \leq z \leq 2.0$~~ .

**7. (currently amended):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are gloss pigments comprising

(a) a core substantially consisting of one or more silicon oxides ( $\text{SiO}_x$  layer) wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,

(b) optionally, an  $\text{SiO}_z$  layer, wherein  $0.95 \leq z \leq 2.0$ , ~~especially  $1.1 \leq y \leq 2.0$ , more especially  $1.4 \leq y \leq 2.0$ , especially an  $\text{SiO}_2$  layer,~~

(c) optionally, a layer  $D^M$  having a transparency of from 50 to 100% and a complex refractive index  $\tilde{N} = n + ik$  satisfying the condition  $\sqrt{n^2 + k^2} \geq 1.5$  at the wavelength of maximum visible reflection of the particles, which is substantially composed of carbon, an organic compound, inorganic or organic pigments or colorants, a metal, metal oxides or sulfides, a dielectric or a mixture thereof, and which is either on top of the core or, if an  $\text{SiO}_z$  layer is present, is separated from the core by the  $\text{SiO}_z$  layer.

**8. (currently amended):** An aqueous ink composition according to claim 7, wherein the gloss pigment has the following layer structure:

(b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~

- (b1)  $\text{SiO}_x$  core wherein  $0.03 \leq x < 0.95$ ,
- (b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~ or
- (b3) layer  $\text{D}^{\text{M}}$ , ~~especially  $\text{TiO}_2$ ,~~
- (b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~
- (b1)  $\text{SiO}_x$  core wherein  $0.03 \leq x < 0.95$ ,
- (b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~
- (b3) layer  $\text{D}^{\text{M}}$ , ~~especially  $\text{TiO}_2$ ,~~

**9. (currently amended):** An aqueous ink composition according to claim 8, wherein the materials for the layer  $\text{D}^{\text{M}}$  are selected from metals, ~~such as~~ selected from the group consisting of Ag, Al, Au, Cu, Co, Cr, Fe, Ge, Mo, Nb, Ni, Si, Ti, V, and alloys thereof, inorganic pigments, ~~or~~ organic pigments, ~~or~~ other colorants, graphite and ~~compounds similar to graphite,~~ metal oxides or sulfides, ~~such as~~ selected from the group consisting of  $\text{MoS}_2$ ,  $\text{TiO}_2$ ,  $\text{ZrO}_2$ ,  $\text{SiO}$ ,  $\text{SnO}_2$ ,  $\text{GeO}_2$ ,  $\text{ZnO}$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{V}_2\text{O}_5$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{Cr}_2\text{O}_3$ ,  $\text{PbTiO}_3$  or and  $\text{CuO}$ , ~~and mixtures thereof.~~

**10. (currently amended):** A process for printing a planar substrate according to the ink-jet printing method, which comprises printing the substrate with an aqueous ink composition according to ~~any~~ one of claim [[s]] 1, to 9.

**11. (currently amended):** A platelet-shaped aluminum particle comprising:

an aluminum layer having a top surface, a bottom surface, and at least one side surface, and having a thickness of 30 nm to 60 nm, ~~especially 30 to 50 nm;~~

and

a  $\text{SiO}_z$  layer with  $0.95 \leq z \leq 2.0$  on each of the top and bottom surfaces but not on the at least one side surface, having a thickness of 15 to 80 nm, ~~especially 10 to 25 nm~~

**12. (new):** A process for producing  $\text{SiO}_z$ -coated ( $0.95 \leq z \leq 2.0$ ) aluminum flakes which comprises the following steps:

- a) vapor-deposition of a separating agent onto a (movable) carrier to produce a separating-agent layer,
- b) vapor-deposition of an  $\text{SiO}_y$  layer ( $0.95 \leq y \leq 1.80$ ) onto the separating-agent layer,
- c) vapor-deposition of an aluminum layer onto the  $\text{SiO}_y$  layer obtained in step b),
- d) vapor-deposition of an  $\text{SiO}_y$  layer ( $0.95 \leq y \leq 1.80$ ) onto the aluminum layer obtained in

step c),

e) dissolution of the separating-agent layer in a solvent,

f) separation of the  $\text{SiO}_y$ -coated aluminum flakes from the solvent and

g) passing air or another oxygen containing gas for several hours through the  $\text{SiO}_y$ -coated aluminum flakes in the form of loose material or in a fluidized bed at a temperature of more than  $200^\circ\text{C}$ .

**13. (new):** A process according to claim 12, wherein  $1.1 \leq y \leq 1.50$  for the  $\text{SiO}_y$  layer of step d).

**14. (new):**  $\text{SiO}_z$ -coated ( $0.95 \leq z \leq 2.0$ ) aluminum flakes obtained by the process according to claim 12.

**15. (new):**  $\text{SiO}_z$ -coated ( $0.95 \leq z \leq 2.0$ ) aluminum flakes obtained by the process according to claim 13.

**16. (new):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are aluminium flakes coated with  $\text{SiO}_z$  wherein  $1.1 \leq z \leq 2.0$ .

**17. (new):** An aqueous ink composition according to claim 5, wherein the pigment has the following layer structure: especially  $\text{SiO}_2/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_2$ , especially  $\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_2$ , especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$  or especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$ , wherein  $0.03 \leq x < 0.95$  and  $0.95 \leq z \leq 2.0$ .

**18. (new):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are gloss pigments comprising

(a) a core substantially consisting of one or more silicon oxides ( $\text{SiO}_x$  layer) wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$  and

(b) an  $\text{SiO}_z$  layer, wherein, especially  $1.1 \leq y \leq 2.0$ .

**19. (new):** An aqueous ink composition according to claim 7, wherein the gloss pigment has the following layer structure:

(b2)  $\text{SiO}_2$  layer,

(b1)  $\text{SiO}_x$  core wherein  $0.03 \leq x < 0.95$ ,

(b2) SiO<sub>2</sub> layer,  
or  
(b3) layer D<sup>M</sup> composed of TiO<sub>2</sub>,  
(b2) SiO<sub>2</sub> layer,  
(b1) SiO<sub>x</sub> core wherein  $0.03 \leq x < 0.95$ ,  
(b2) SiO<sub>2</sub> layer,  
(b3) layer D<sup>M</sup> composed of TiO<sub>2</sub>.

**20. (new):** A platelet-shaped aluminum particle according to claim 11, wherein the aluminum layer has a thickness 30 to 50 nm, and the SiO<sub>2</sub> has a thickness 10 to 25 nm.